Financial Services Regulatory Authority of Ontario

Interpretation

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Net Cumulative Cash Flow Completion Guide

Purpose

The Net Cumulative Cash Flow (NCCF) is a liquidity metric that measures a credit union's survival horizon based on its net cumulative cash flows. This Interpretation Guidance provides credit unions with FSRA's interpretation of legislative requirements as they relate to the calculation of, and reporting on, their NCCF.

Scope

This Interpretation Guidance affects the following entities regulated by FSRA:

- Credit Unions and Caisses Populaires incorporated under the *Credit Unions and Caisses Populaires Act, 1994* (the Act) This Guidance complements the information provided in, and should be read in conjunction with, other FRSA guidance and supporting publications available on FSRA's website (www.fsrao.ca).

Interpretation

Section 84 of the Act and sections 21 to 23 of Ontario Regulation 237/09 (the Regulation) require that credit unions maintain adequate and prudent forms of liquidity that are sufficient to meet the credit union's cash flow needs, including depositor withdrawals and all other obligations as they come due. In this Guidance, FSRA interprets these legislative requirements under the Act and Regulation.

Compliance expectations

This Guidance sets out FSRA's interpretation of the requirements under the Act and associated Regulation with respect to prudent liquidity management. Non-adherence may lead to enforcement or supervisory action by FSRA, including requiring remediation and reporting, and/or issuing orders and placing the credit unions under supervision or administration.

FSRA's supervision and, if required, enforcement activities, will be carried out under the relevant provisions of the Act and its general authority under the FSRA Act.

NCCF completion and reporting

Introduction

1. The NCCF is a liquidity metric that measures a credit union's survival horizon based on its net cumulative cash flows. It identifies potential future funding mismatches between contractual inflows and outflows for various time bands over and up to a 12-month time horizon. It measures a credit union's detailed cash flows, in order to capture the risk posed by funding mismatches between assets and liabilities, after the application of assumptions around the functioning of assets and modified liabilities. NCCF definitions mirror those outlined in the Liquidity Coverage Ratio (LCR), unless otherwise specified. All references to LCR definitions in the NCCF refer to the definitions outlined in the LCR documents.

Assumptions

2. These assumptions are based on a stressed liquidity scenario that encompasses a combination of idiosyncratic and systemic stresses which measure the impacts of assumptions over a one-year liquidity horizon. Stress assumptions include:

- cash flows from eligible unencumbered liquid assets;
- partial run-off of retail deposits; and

- partial run-off of wholesale or brokered deposits.

3. The time buckets reported under the NCCF include monthly buckets for month 1 to month 12, and a greater than 12 month's bucket. Cash flows associated with assets and liabilities that have a contractual maturity should be considered based on their residual contractual maturity, unless otherwise specified.

Inflows

4.Cash inflow treatments for balance sheet assets are determined by whether the asset meets the criteria for an unencumbered liquid asset and its residual contractual maturity date or earliest option date unless instructed otherwise.

Eligible unencumbered liquid assets (EULA)

5. Cash inflows of unencumbered liquid assets reported in the month 1 time bucket after the appropriate haircut is applied to in accordance with the EULA Haircuts Table (refer Appendix 1). Securities that are not qualified as EULA receive a 100% haircut. The haircut amount of maturity inflows are to be reported in the contractual maturity time bucket of the NCCF report.

6. Unencumbered means free of legal, regulatory, contractual or other restrictions on the ability of the credit union to liquidate, sell, transfer, or assign the asset. The asset should not be pledged, either explicitly or implicitly, to secure, collateralize or credit-enhance any transaction, nor be designated to cover operational costs such as rents and salaries. The asset should also be accessible by the function charged with managing the liquidity of the credit union (e.g. the treasurer).

7. Report all unencumbered *National Housing Act* Mortgage-backed Securities (NHA MBS) balances in this section, regardless of its pool size.These include MBS purchased as investments and MBS created and which qualify for sale (e.g. market MBS).

8. Credit unions should only include liquid assets that can be monetized through operational capability; the credit union should have procedures and appropriate systems in place, including providing the liquidity management function with access to all necessary information, to execute monetization of any asset at any time.

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Other unencumbered liquid assets

9. Assets received in reverse repurchase agreements and securities financing transactions that are held at the credit union, have not been re-hypothecated, and are legally and contractually available for the credit union's use can be considered as part of the pool of liquid assets and included in month 1.

10. Credit unions may receive liquidity value for collateral swaps provided they can clearly demonstrate that, at a minimum, the transactions are for a specified contract period, the securities used for the underlying collateral being swapped are outlined in the transaction details, mark-to-market procedures are understood and documented, and there is not substitution of collateral over the life of the contract, unless it is a like-for-like substitution. In addition, credit unions should have adequate and ongoing market risk management control and oversight of collateral swap activity, and recognize liquidity or cash flow implications at the termination of the swap.

Cash inflows from reverse repurchase agreements which do not meet the conditions outlined above are assumed to occur at contractual maturity.

Deposits with centrals, leagues or other financial institutions

11. Demand deposits with centrals, leagues or other financial institutions are to be treated as cash inflows in month 1. Term deposits are treated as cash inflows in the earliest contractual maturity time bucket.

Other securities

12. Cash inflows from other government securities, mortgage-backed securities, asset-backed securities, corporate commercial paper, and corporate bonds, which are not considered eligible unencumbered liquid assets, should be reported in the contractual maturity time buckets.

For securities eligible as unencumbered liquid assets, balances are treated as cash inflows in month 1 after the appropriate haircut. Cash inflows are limited to the face value of the security.

13. Cash inflows from securities borrowed are assumed to occur at contractual maturity for the principal amount borrowed. Interest will not be recognized as a cash inflow.

Other investments

14. Other investments, which are not considered eligible unencumbered liquid assets, are to be reported in greater than 12-month time bucket with the exception of cash inflows for dividends which are to be reported on the declaration date.

Personal loan portfolio

15. Credit unions have the option to report (a) blended loan amortization and interest payment inflows or (b) suppress interest payments and report loan amortization payments only as appropriate. Whichever method is adopted must be consistent with reporting deposit payment outflows (Refer paragraph 33). Non-performing loans are loans that are greater than 90 days delinquent.

Residential mortgages

16. Credit unions should only include contractual inflows from outstanding exposures that are fully performing. Contingent inflows are not to be included in cash inflows.

17. No cash inflow value would be received for inflows from balances at maturity, as residential mortgages are assumed to roll over at 100%. Payment inflows are assumed to continue at the same level for month 1 to 12.

Securitized residential mortgages

18. Balances at maturity and the balance of period amortization payments of residential mortgages securitized and unsold (i.e. the mortgage backed securities) are treated as cash inflows in the first time bucket after the appropriate haircut is applied and reported under HQLA.(refer to paragraph 7) .

19. For residential mortgages securitized and used to back Canada Housing Trust (CHT) swaps, cash inflows from these securitized mortgages, both balance at maturity and periodic amortization payments, are to be reported in time buckets corresponding to the CHT swap

contractual maturity. For mortgages securitized and encumbered, the corresponding liability is not assumed to roll over.

20. For residential mortgages that are securitized and sold to third-parties, periodic amortization payments and payment of balance at maturity cash inflows are to be reported in each time bucket when the payments are recognized.

Term loans

21. Credit unions should only include contractual inflows from outstanding term loans that are fully performing. Contingent inflows are not to be included in cash inflows. No rollover at maturity is assumed.

Lines of credit

22. Cash inflows from lines of credit are assumed to occur at the latest possible time band within the contractual maturity date. Cash inflows from a line of credit which has no specific maturity date should be reported based on cash flows generated from the specified minimum payments.

Leases & other

23. Credit unions should only include contractual inflows from outstanding leases and personal loan exposures that are fully performing. Contingent inflows are not to be included in cash inflows. No rollover at maturity is assumed.

Commercial loan portfolio

24. Refer to Section 3.6 Personal Loan Portfolio for cash flow treatments and assumptions for the commercial loan portfolio.

All other assets

25. All other assets not mentioned above are to be reported in the NCCF report, but no cash flow value will be attributed to them. These amounts are to be reported in the greater than 12 months' time bucket.

26. All derivative-related cash inflows should be included at expected contractual payment dates in accordance with their existing valuation methodologies. Cash flows may be calculated on a net basis (i.e., inflows can offset outflows) by counterparty, only where a valid master netting agreement exists. The amount of derivatives cash inflows and outflows should be calculated in accordance with other provisions of the methodology described in section 4.2, paragraph 53, below.

27. Credit unions should not double count liquidity inflows or outflows. Where derivatives are collateralized by eligible liquid assets, inflows should be calculated net of any corresponding outflows that would result from contractual obligations for collateral to be posted by the credit union, given these contractual obligations would reduce the pool of eligible liquid assets.

Outflows

28. The cash outflow treatments for balance sheet liabilities items differ depending on whether the liability has a contractual maturity or no specific maturity date. Balances should be run-off on a declining balance basis.

29. Unless instructed otherwise, cash outflow for balance sheet liabilities with contractual maturities are not assumed to roll over and to be allocated to maturity buckets corresponding with their contractual maturity or earliest option date.

30. Consistent with the underlying intent of the metric, no rollover of existing liabilities is generally assumed to take place, with the exception of retail and small business term deposits. Run-offs for retail and small business term deposits will be assumed to renew at the same term as the original deposit, less the applicable run-off rate.

31. The general treatment described above applies to:

- repurchase agreements;
- term deposits other than retail and small business term deposits, regardless of the counterparty type;
- other wholesale liabilities including commercial paper, certificates of deposit, deposit notes, and bonds; and
- outflows from FI-sponsored ABCP, SIVs, and securitizations.

Deposits

32. Credit unions have the option to report (a) blended deposit repayment and interest payment outflows or (b) suppress reporting of interest payment outflows as appropriate. Whichever method is adopted must be consistent with reporting of loan payment inflows (Refer paragraph 16). Where amounts cannot be readily determined for any specific category, credit unions must report amounts using the more conservative (higher run offs) category under each funding source. Credit unions may report initial monthly amounts by applying percentage factors based on the most up to date financial year end balances for each category as applicable.

Retail deposits

33. Retail deposits are deposits placed with a credit union by a natural person or small business. Retail deposits are assumed to renew with a portion of the remaining deposit balance to be run off every time a renewal is assumed to take place. Cashable term deposits are treated as demand deposits at the first member option date.

Stable deposits

Insured deposits with established relationship or in transactional accounts

Examples of established relationships include members that also have a loan, line of credit or investments with the credit union. Examples of transactional accounts include accounts where there are automatic regular deposits of salary, pensions or other sources of income. Refer LCR reporting template Lines 12 and 13. Where a credit union is not readily able to identify which retail deposits would qualify as stable deposits under paragraph 35 or 36, it should report the full amount under paragraph 37 or 38. Where a credit union in not readily able to identify which retail deposits would qualify as insured deposits under 37 or 38, it should report the full amount under paragraph 39 - 42 as appropriate.

34. Demand deposits are assigned a run-off of at 3% per month for month 1 and 1% per month for month 2-12 on a declining balance basis.

35. Term deposits are assigned a run off at 3% at initial maturity with the net balance rolling over to the same term. A run off of 1% is assigned on subsequent renewals, up to month 12.

Other insured deposits

36. Demand deposits are assigned a run-off of 5% for month 1and 1% per month for month 2-12 on a declining balance basis.

37. Term deposits are assigned a run off 5% at initial maturity with the net balance rolling over to the same term. A run off of 1% is assigned on subsequent renewals, up to month 12.

Less stable deposits
Broker deposits

38. Demand deposits sourced from unaffiliated third-parties or acquired through deposit agents, are assigned a run-off rate of 10% for month 1 and 5% for month 2-12 on a declining basis.

39. Term deposits sourced from unaffiliated third-parties or acquired through deposit agents, are assigned a run-off rate of 10% at initial maturity with the net balance rolling over to the same term. A runoff of 5% is assigned on subsequent renewals, up to month 12.

Other uninsured deposits

40. Demand deposits are assigned a run-off of 10% for month 1 and 5% per month for month 2-12 on a declining balance basis.

41. Term deposits are assigned a runoff of 10% at initial maturity with the net balance rolling over to the same term. A runoff of 5% is assigned on subsequent renewals, up to month 12.

Wholesale deposits

Term Deposits with original term >30 days

42. All wholesale term deposits with an original term greater than 30 days are assigned a runoff of 100% at the earliest contractual renewal.

Non-Financial Institution – Operational (Insured)

43. For insured unsecured demand wholesale funding provided by non-small business depositors, where the institution has operational deposits generated by clearing, custody and cash management activities, these deposits are generally assigned a run-off of 3% per month on a declining basis.

Non-Financial Institution – Operational (Uninsured)

44. For uninsured unsecured demand wholesale funding provided by non-small business depositors, where the institution has operational deposits generated by clearing, custody and cash management activities, these deposits are generally assigned a run-off of 10% for month 1 and 5% per month for month 2-12 on a declining basis.

Non-Financial Institution – Non-Operational (Insured)

45. For insured unsecured demand wholesale funding provided by non-small business depositors, where the institution has operational deposits generated by clearing, custody and cash management activities, these deposits are generally assigned a run-off of 12.5% for month 1and 5% per month for month 2-12 on a declining basis.

Non-Financial Institution – Non-Operational (Uninsured)

46. For uninsured unsecured demand wholesale funding provided by non-small business depositors, that are not specifically held for operational purposes are assigned a run-off of 12.5% for month 1 and 10% per month for month 2-12 on a declining basis.

Financial Institutions

47. All wholesale deposits and other funding from all other counterparties (including financial institutions, securities firms, insurance companies, etc.) that are not specifically held for operational purposes and not included in the above categories run-off are assigned a 100% run off at month 1.

Other outflows

48. Operating/clearing line account balances at Central 1, League or financial institution are expected to remain within their prescribed limits. Repayment of balances in excess of prescribed limits should be reported as an outflow in month 1.

49. Term loans with Central 1, league or financial institution are for cash management purposes, occasional borrowings, assistance with fixed asset purchase, and/or to assist in asset/liability management. Credit unions are expected to repay term loans or other term borrowings in full at maturity date.

50.Cash outflows for other borrowings, including securitization borrowings, are not assumed to roll over and to be reported in full at contractual maturity date.

51. Securities sold short, securities lent and funding guarantees to subsidiaries and branches should all be assumed to have immediate cash outflows (i.e., first maturity bucket) of principal.

52. All derivative-related cash outflows should be included at the expected contractual payment dates in accordance with their existing valuation methodologies. Cash flows may be calculated on a net basis (i.e., inflows can offset outflows) by counterparty, only where a valid master netting agreement exists. Options should be assumed to be exercised when they are ‘in the money’ to the option buyer. Credit unions should not double count liquidity inflows or outflows. Where derivative payments are collateralized by eligible liquid assets, outflows should be calculated net of any corresponding inflows that would result from contractual obligations for collateral to be provided to the credit union; this is conditioned on the credit union being legally entitled and operationally capable to re-use the collateral in new cash raising transactions once the collateral is received.

53. Other balance sheet liabilities not mentioned above are to be reported in the NCCF, but no cash outflow value is attributed to them.

Equity

54. Cash outflows for equity are assumed to occur at 100% in the greater than 12 month time bucket.

Memo items - commitments

55. Off-balance sheet funding guarantees are defined as explicit contractual agreements or obligations to extend funds at a future date to retail or wholesale counterparties. For purposes of the NCCF, these facilities only include contractually irrevocable (“committed”) or conditionally revocable agreements to extend funds in the future to third-parties, and will be reported in the NCCF template but will not be included as outflows.

Effective date and future review

This Interpretation Guidance became effective on January 1, 2021 and will be reviewed no later than January 1, 2024.

About this guidance

This document is consistent with FSRA’s Guidance Framework. As Interpretation Guidance, it describes FSRA’s view of requirements under its legislative mandate (i.e. legislation, regulations and rules) so that non-compliance can lead to enforcement or supervisory action. Visit FSRA’s Guidance Framework to learn more.

Appendices and reference

Appendix 1: securities haircuts table

RATING	Equivalent Credit Rating
High Rated	AA- / Aa3 to AAA / Aaa
Medium Rated	A-/A2 to A+ / A1
Low Rated	D to BBB+/Baa1 or not rated

High Rated Government Securities

Securities	Haircut
Sovereign & Central Bank Government Securities	0.5%
State, Provincial & Agency Government Securities	1.5%
State Municipal Government Securities	5.0%

Medium Rated Government Securities

Securities	Haircut
Sovereign & Central Bank Government Securities	10.0%
State, Provincial & Agency Government Securities	13.0%
State Municipal Government Securities	20.0%

Non-FI Issued Corporate Bonds and Paper (High rated)

Securities	Haircut
Non-FI issued unsecured bonds and paper (High rated)	5.0%
Non-FI issued covered bonds (High rated)	5.0%

FI Issued Corporate bonds and Paper (High Rated)

Securities	Haircut
FI issued unsecured bonds and paper (High rated)	9.0%
FI issued covered bonds (High rated)	9.0%

Non-FI Issued Corporate Bonds and Papers (Medium Rated)

Securities	Haircut
Non-FI issued unsecured bonds and paper (Medium rated)	10.0%
FI issued covered bonds (High rated)	10.0%

Non-FI Issued Corporate Bonds and Papers (Medium Rated)

Securities	Haircut
Non-FI issued unsecured bonds and paper (Medium rated)	10.0%
FI issued covered bonds (High rated)	10.0%

FI Issued Corporate Bonds and Paper (Medium rated)

Securities	Haircut
FI issued unsecured bonds and paper (Medium rated)	11.0%
FI issued covered bonds (Medium rated)	11.0%
Non-FI Issued ABCP (High rated) (Note **1**)	7.5%

FI Issued ABS and ABCP (High rated)

Securities	Haircut
FI issued ABCP (High rated)	7.5%
For all other securities	100%

Securities	Haircut
FI issued ABCP (High rated)	7.5%
For all other securities	100%

Loans

Securitised Residential Mortgages

Securities	Haircut
EULA Securitised Res Mort (Balance at Maturity)	4.0%
EULA Securitised Res Mort (Payments)	4.0%

Securitised Commercial Mortgages

Securities	Haircut
EULA Securitised Coml Mort (Balance at Maturity)	4.0%
EULA Securitised Coml Mort (Payments)	4.0%

Note 1.

For “non-FI/FI Issued ABCP (High rated)”, only ABCPs accepted at the central banks in Canada and U.S. are eligible for the 7.5% haircut noted above.

Appendix 2: Summary run-off rates and assumptions

Reference: Eligible Unencumbered Liquid Assets

(Haircuts are prescribed in the Securities Haircut Table – Appendix 1)

Assets		Inflow	
Balance Sheet Items	**Assumptions: Month 1 or initial maturity**	**Assumptions: 2-12 or subsequent maturities**	**Assumptions: >12 Months**
NHA MBS (includes purchased MBS and created/market MBS	100% in month 1 after applicable haircut (4%)	Haircut (4%) of maturing inflows is recognized in contractual maturity time buckets.	
Other	100% in month 1 after applicable haircut	Haircut amount is recognized at contractual maturity time	

Reference: Eligible Unencumbered Liquid Assets

(Haircuts are prescribed in the Securities Haircut Table – Appendix 1)

Assets		Inflow	
Balance Sheet Items	**Assumptions: Month 1 or initial maturity**	**Assumptions: 2-12 or subsequent maturities**	**Assumptions: >12 Months**
NHA MBS (includes purchased MBS and created/market MBS	100% in month 1 after applicable haircut (4%)	Haircut (4%) of maturing inflows is recognized in contractual maturity time buckets.	
Other	100% in month 1 after applicable haircut	Haircut amount is recognized at contractual maturity time	

Reference: Other Cash and Investments

Assets		Inflow	
Balance Sheet Items	**Assumptions: Month 1 or initial maturity**	**Assumptions: 2-12 or subsequent maturities**	**Assumptions: >12 Months**
Deposits at Other Financial Institutions	100%	Haircut (4%) of maturing inflows is recognized in contractual maturity time buckets.	
Other securities	100% at contractual maturity or the earliest option date	Haircut amount is recognized at contractual maturity time	
Other Investments	Cash inflow for dividend on declaration date.		100% >12 mths

Reference: Performing Loans – Personal and Commercial

Assets		Inflow	
Balance Sheet Items	**Assumptions: Month 1 or initial maturity**	**Assumptions: 2-12 or subsequent maturities**	**Assumptions: >12 Months**
Mortgages (Balance at Maturity)	100% rollover at contractual maturity with **NO** inflow.		
Mortgages (Payments)	Contractual amortization payments are recognized as inflows in each period. Inflows from payments for month 1 will be recognized as the same inflows for month 2-12 time buckets		
Securitized Mortgages (Balance at Maturity)	No rollover. 100% at contractual maturity.		

Balance Sheet Items	Assumptions: Month 1 or initial maturity	Assumptions: 2-12 or subsequent maturities	Assumptions: >12 Months
Securitized Mortgages (Payments)	No rollover. 100% at contractual maturity.		
Term Loans	Contractual amortization payments are recognized as inflows in each period. 100% at contractual maturity. No rollover at maturity assumed.		
Line of Credit	100% at contractual maturity. No rollover at maturity assumed. Include specified minimum payments only for Line of Credit with no specific maturity		

Balance Sheet Items	Assumptions: Month 1 or initial maturity	Assumptions: 2-12 or subsequent maturities	Assumptions: >12 Months
Leases and Other	Contractual amortization payments are recognized as inflows in each period 100% at contractual maturity; No rollover at maturity assumed.		

Reference: Other Assets

Assets		Inflow	
Balance Sheet Items	**Assumptions: Month 1 or initial maturity**	**Assumptions: 2-12 or subsequent maturities**	**Assumptions: >12 Months**
Other Assets	N/A	N/A	100%

Reference: Retail Deposits (Personal, and Small Business)

Stable Deposits

Liabilities		Outflows	
Balance Sheet Items	**Assumptions: Month 1 or initial maturity**	**Assumptions: 2-12 or subsequent maturities**	**Assumptions: >12 Months**
Insured demand deposits with established relationships or in transactional accounts	3%	1% per month on declining balance	
Insured Term deposits with established relationships or in transaction accounts	3%. Net balance rolls over with same term	1% at subsequent maturity dates on declining balance	
Other Insured demand deposits	5%	1% per month on declining balance	

Balance Sheet Items	Assumptions: Month 1 or initial maturity	Assumptions: 2-12 or subsequent maturities	Assumptions: >12 Months
Other insured term deposits	5%. Net balance rolls over with same term	1% at subsequent maturity dates on declining balance	

Reference: Retail Deposits (Personal, and Small Business)

Less Stable Deposits

Liabilities		Outflows	
Balance Sheet Items	**Assumptions: Month 1 or initial maturity**	**Assumptions: 2-12 or subsequent maturities**	**Assumptions: >12 Months**
Brokered Deposits – Demand	10%	5% per month on declining balance	
Brokered Deposits – term	10%. Net balance rolls over with same term	5% at subsequent maturity dates on declining balance	
Uninsured demand deposits	10%	5% per month on declining balance	
Uninsured term deposits	10%. Net balance rolls over with same term	5% at subsequent maturity dates on declining balance	

Reference: Unsecure Wholesale Deposits

Liabilities		Outflows	
Balance Sheet Items	**Assumptions: Month 1 or initial maturity**	**Assumptions: 2-12 or subsequent maturities**	**Assumptions: >12 Months**
All term deposits (original term >30days)	100% at initial maturity. No rollover	N/A	
Other demand and term deposits with current term of 1 month or less)	10%. Net balance rolls over with same term	5% at subsequent maturity dates on declining balance	
Operational Deposits - Insured	3%	5% per month on declining balance	
Uninsured term deposits	10%. Net balance rolls over with same term	5% at subsequent maturity dates on declining balance	
Non-operational deposits – insured	12.5%	10% per month on declining balance	

Balance Sheet Items	Assumptions: Month 1 or initial maturity	Assumptions: 2-12 or subsequent maturities	Assumptions: >12 Months
Non-operational deposits from financial institutions and other legal entities	100% at month 1	N/A	

Reference: Borrowings and Other Liabilities

Liabilities		Outflows	
Balance Sheet Items	**Assumptions: Month 1 or initial maturity**	**Assumptions: 2-12 or subsequent maturities**	**Assumptions: >12 Months**
Central 1 or League – Operating/Clearing account	100%	N/A	
Central 1 or League – Term Borrowings	100% at contractual maturity date	5% at subsequent maturity dates on declining balance	

Balance Sheet Items	Assumptions: Month 1 or initial maturity	Assumptions: 2-12 or subsequent maturities	Assumptions: >12 Months
Other Borrowings (including securitizations)	N/A	N/A	100%
Equity	N/A	N/A	100%

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